

WHAT IS CLAIMED IS:

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1. A method for managing a document collection in a computer system, said method comprising the steps of:
 - 5 importing a document having a first format into the computer system;
 - storing the document in a memory location;
 - automatically extracting attribute data from the document; and
 - 10 generating a data structure for the document, wherein said data structure contains the attribute data in a second format independent of said first format.
 2. The method of claim 1, wherein said step of
15 importing a document into the computer system comprises the steps of:
 - optically scanning a paper-based document; and
 - converting the optically scanned document into an electronic document.
 - 20 3. The method of claim 2, wherein the first format is an image format.
 4. The method of claim 2, wherein the first format is
25 a text format.
 5. The method of claim 1, wherein said step of importing a document into the computer system comprises the step of:
30 importing an electronic document.
 6. The method of claim 5, wherein the first format is a text format.
 - 35 7. The method of claim 6, wherein the document is a word processing document.

8. The method of claim 6, wherein the document is an e-mail message.

5 9. The method of claim 5, wherein the first format is an image format.

10. The method of claim 5, wherein the first format is an HTML format.

10 11. The method of claim 1, wherein the second format comprises at least one data field.

12. The method of claim 11, wherein the at least one data field contains a file name.

15 13. The method of claim 11, wherein the at least one data field contains the memory location.

20 14. The method of claim 11, wherein the data field contains a bit map.

15. The method of claim 11, wherein the data field contains raw text.

25 16. The method of claim 11, wherein the data field contains a data attribute.

17. The method of claim 16, wherein the data attribute is an author name.

30 18. The method of claim 16, wherein the data attribute is a publication date.

35 19. The method of claim 16, wherein the data attribute is a word count.

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20. The method of claim 16, wherein the data attribute is an annotation.

21. The method of claim 16, wherein the data attribute is a key word.

22. The method of claim 16, wherein the data attribute is an image type.

23. The method of claim 16, wherein the data attribute is an image dimension.

24. The method of claim 16, wherein the data attribute is meta-text with positioning information.

25. The method of claim 1, further comprising the step of extracting indexing information from the attribute data in the data structure.

26. The method of claim 25 further comprising the steps of:
monitoring modifications to the document; and
extracting updated indexing information.

27. The method of claim 25, wherein the attribute data is derived from a data field comprising raw text data.

28. The method of claim 25 further comprising the step of:
identifying the document from amongst other documents in the document collection utilizing the indexing information.

29. The method of claim 1 further comprising the step of:

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linking the document to a first electronic folder if the attribute data matches a set of predefined criteria corresponding to the first electronic folder.

Sub A3 5 30. The method of claim 29 further comprising the steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

10 determining whether the document is to be automatically linked to the first electronic folder; and identifying the document on an inclusion list if it is determined that the document is not automatically linked to the first electronic folder.

15 31. The method of claim 29 further comprising the steps of:

electronically analyzing the attribute data stored in the data structure corresponding to the document;

20 determining whether the document is to be automatically excluded from being linked to the first electronic folder; and

25 identifying the document on an exclusion list if it is determined that the document is not to be automatically excluded from being linked to the first electronic folder.

32. The method of claim 29 further comprising the steps of:

30 monitoring document modifications; and automatically linking the document to a second electronic folder if a document modification causes the attribute data to match a set of predefined criteria corresponding to the second electronic folder.

35 33. The method of claim 29 further comprising the steps of:

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5 monitoring document modifications; and
automatically deleting the link between the
document and the first electronic folder if a document
modification causes the attribute information to no longer
match the set of predefined criteria corresponding to the
first electronic folder.

10 34. The method of claim 29, wherein the attribute data
is a document title.

35. The method of claim 29, wherein the attribute data
is a document author.

15 36. The method of claim 29, wherein the attribute data
is a phrase associated with the document.

37. The method of claim 29, wherein the attribute data
is a key word.

20 38. The method of claim 29, wherein the attribute data
is a common concept.

39. The method of claim 29 further comprising the step
of:

25 automatically manipulating the document based on a
predefined behavior associated with the first electronic
folder.

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~~39~~₄₀. The method of claim ³⁸~~39~~, wherein the predefined
behavior is a user-defined behavior.

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~~40~~₄₁. The method of claim ³⁸~~39~~, wherein the predefined
behavior involves e-mailing the document to a preprogrammed
e-mail address.

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The method of claim 38, wherein the predefined behavior involves providing controlled access to the document.

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The method of claim 1 further comprising the steps of:

linking the document to a folder, wherein the folder has associated with it a predefined behavior; and automatically manipulating the document in accordance with the predefined behavior.

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The method of claim 42, wherein the predefined behavior is a user-defined behavior.

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The method of claim 42, wherein the predefined behavior involves e-mailing the document to a preprogrammed e-mail address.

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20 The method of claim 42, wherein the predefined behavior involves providing controlled access to the document.

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The method of claim 1 further comprising the step of:

25 maintaining a second data structure that includes data defining a document hierarchy for the document collection.

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30 The method of claim 46 further comprising the step of:

updating the second data structure to include data that defines a link between the data structure of the imported document and a document hierarchy folder or category.

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The method of claim 47, wherein the second data structure includes data linking all documents in the document collection to at least one folder or category.

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The method of claim 47 further comprising the step of:

maintaining a third data structure that includes data defining a second document hierarchy for the document collection, or a portion thereof, wherein the third data structure is maintained at a local terminal connected to the computer system.

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A computer-readable storage medium having stored therein a program which executes the steps of:

importing a document into a computer-based system;
storing the document in memory;

automatically extracting attribute data from the document; and

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generating a data structure corresponding to the document comprising the extracted attribute data in a standardized format regardless of document type or document format.

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52. The computer-readable storage medium in accordance with claim 51, wherein said program further comprises the executable steps of:

predefining category criteria for a first electronic folder; and

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linking the document to the first electronic folder if the attribute data in the data structure corresponding to the document matches the category criteria.

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53. The computer-readable storage medium in accordance with claim 52, wherein said program further comprises the executable steps of:

electronically analyzing the attribute data stored
in the data structure corresponding to the document;

comparing the attribute data to the predefined
category criteria for the first electronic folder;

determining whether the document is to be
automatically linked to the first electronic folder based on
the comparison; and

identifying the document on an inclusion list if
it is determined that the document is not to be
automatically linked to the first electronic folder.

54. The computer-readable storage medium in accordance
with claim 52, wherein said program further comprises the
executable steps of:

electronically analyzing the attribute data stored
in the data structure corresponding to the document;

comparing the attribute data to the predefined
category criteria for the first electronic folder;

determining whether the document is to be
automatically excluded from being linked to the first
electronic folder; and

identifying the document on an exclusion list if
it is determined that the document is not to be
automatically excluded from being linked to the first
electronic folder.

55. The computer-readable storage medium in accordance
with claim 52, wherein said executable step of predefining
category criteria for the first electronic folder comprises
the steps of:

storing a seed document in the first electronic
folder;

analyzing the seed document; and

extracting the category criteria from the seed
document.

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56. The computer-readable storage medium in accordance with claim 58, wherein the predefined category criteria is based on user-defined criteria.

5 57. The computer-readable storage medium in accordance with claim 58, wherein said program further comprises the executable steps of:

monitoring document modifications; and
automatically linking the document to a second

10 electronic folder if the attribute data now matches predefined category criteria associated with the second electronic folder.

58. The computer-readable storage medium in accordance with claim 52, wherein said program further comprises the executable steps of:

monitoring document modification; and
automatically deleting the link between the

document and the first electronic folder if the attribute
20 data no longer matches the predefined criteria associated with the first electronic folder.

59. The computer-readable storage medium in accordance with claim 52, wherein the attribute data is a document
25 title.

60. The computer-readable storage medium in accordance with claim 52, wherein the attribute data is a document
author.

30 61. The computer-readable storage medium in accordance with claim 52, wherein the attribute data is a phrase associated with the document.

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62. The computer-readable storage medium in accordance with claim 52, wherein the attribute data is a common concept.

5 63. The computer-readable storage medium in accordance with claim 52, wherein the attribute data is a key word.

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64. The computer-readable storage medium in accordance with claim ⁵⁰51, wherein said program further comprises the
10 executable steps of:

linking the document with an electronic folder;
and

manipulating the document automatically based on a predefined behavior associated with the electronic folder.

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65. The computer-readable storage medium in accordance with claim ⁶²64, wherein the predefined behavior is a user-defined behavior.

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20 66. The computer-readable storage medium in accordance with claim ⁶²64, wherein the predefined behavior involves e-mailing the document to a preprogrammed e-mail address.

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25 67. The computer-readable storage medium in accordance with claim ⁶²64, wherein the predefined behavior involves providing controlled access to the document.

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30 68. The computer-readable storage medium in accordance with claim ⁵⁰51, wherein said step of importing a document into the computer-based system comprises the executable steps of:

generating program instructions thus causing an optical scanner, connected to the computer system, to optically scan the document, wherein the document is a
35 paper-based document; and

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converting the optically scanned document into an electronic document.

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69. The computer-readable storage medium in accordance
5 with claim ⁶⁶68, wherein the electronic document is an image
file.

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70. The computer-readable storage medium in accordance
10 with claim ⁶⁶68, wherein the electronic document is a text
file.

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71. The computer-readable storage medium in accordance
15 with claim ⁵⁰51, wherein said step of importing a document
into the computer system comprises the executable step of:
importing an electronic document.

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72. The computer-readable storage medium in accordance
with claim ⁶⁹71, wherein the electronic document is a word
processing document.

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73. The computer-readable storage medium in accordance
20 method of claim ⁶⁹71, wherein the electronic document is a
document containing an image.

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74. The computer-readable storage medium in accordance
25 method of claim ⁶⁹71, wherein the electronic document is an e-
mail message.

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75. The computer-readable storage medium in accordance
30 method of claim ⁶⁹71, wherein the electronic document is an
HTML document.

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76. The computer-readable storage medium in accordance
35 with claim ⁵⁰51, wherein said program further comprises the
executable step of:

extracting indexing information from the attribute data in the data structure.

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77. The computer-readable storage medium in accordance
5 with claim ⁷⁴76, wherein said program further comprises the
executable steps of:

monitoring modifications to the document; and
extracting updated indexing information.

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78. The computer-readable storage medium in accordance
10 with claim ⁷⁴76, wherein the attribute data is derived from a
data field in the data structure comprising raw text data.

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79. The computer-readable storage medium in accordance
15 with claim ⁷⁴76, wherein said program further comprises the
executable step of:

identifying the document from amongst other
documents stored in the computer system utilizing the
indexing information.

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80. The computer-readable storage medium in accordance
20 with claim ⁵⁰81, wherein said program further comprises the
executable step of:

maintaining a second data structure that includes
25 data defining a document hierarchy for the document
collection.

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81. The computer-readable storage medium in accordance
30 with claim ⁷⁸80, wherein said program further comprises the
executable step of:

updating the second data structure to include data
that defines a link between the data structure of the
imported document and a document hierarchy folder or
category.

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The computer-readable storage medium in accordance with claim ⁷⁸~~80~~, wherein the second data structure includes data linking all documents in the document collection to at least one folder or category.

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The computer-readable storage medium in accordance with claim ⁷⁸~~80~~, wherein said program further comprises the executable step of:

maintaining a third data structure that includes

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data defining a second document hierarchy for the document collection, or a portion thereof, wherein the third data structure is maintained at a local terminal connected to the computer system.

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